

**DRAFT**  
**Positive Train Control (PTC) Working Group**  
**Data & Implementation Task Force Meeting**  
**March 11 & 12, 1999**  
**Washington, DC**

**March 11: Data & Implementation Task Force Meeting convened at 8:00 a.m.**

- Dean Hollingsworth opened the meeting with a Safety Briefing.
- Ted Bundy asked the group for comments on the January minutes. There was a correction at the bottom of the first page, third bullet, third sentence, which now reads: “He said that Chuck Dettmann, Grady Cothen and Jim Stem were on a committee to oversee the report, and that he (Mr. Stem) has **not** been provided with any team reports, and his only copy of the compiled report was via regular channels when the other task force members received their copies.”

Tim DePaepe had a correction to page 2, first bullet, third paragraph, which now reads: “Tim DePaepe voiced his concern to Howard Moody concerning the ITS report. Mr. DePaepe indicated that **because a mistake was made**, a portion of the ITS report was **missing** when combined into the DRAFT report, and that he would not approve the **report without an opportunity to read the entire revision**.”

After these corrections were made, the Task Force voted to accept the minutes of the January 1999 meeting.

- Frank Roskind reported on the Economics Team Meeting held in Jacksonville, Florida, the first week in March. Frank gave a briefing on the following topics:
  - Economics of Positive Train Control
  - PTC Benefits: Accidents Costs Avoided
  - Fatalities
  - Injuries
  - Equipment Damage
  - Track and Right-of-Way Damage
  - Damage off the Right-of-Way
  - Hazardous Materials Cleanup
  - Evacuations
  - Loss of Lading
  - Wreck Clearing
  - Delays, and
  - System Unit Costs

The group voted to remove the DGPS costs from the analysis.

Bob Gallamore indicated that we need location system enhancements costs that have not yet been identified. Mr. Gallamore wanted a placeholder in the analysis for these costs.

Mr. Cothen agreed that there needs to be a narrative placeholder.

Nick Marsh stated that the DGPS costs were reduced to zero based on confidence that the Federal Government will fund and complete installations of a functioning nationwide network by Year 2002.

**To replace the DGPS costs of \$20,000 in the report the following will be accomplished. The cost will be revised to reflect a zero (0), and a footnote or asterisk will be inserted beside the zero, guiding the reader to the following statement:**

**Location System Enhancement: The Global Positioning System (GPS) augmented by the Nationwide Differential Global Positioning System (NDGPS) provides a powerful technology for location determination needed for Positive Train Control. This system is assumed to be available at no cost to the railroads and therefore not an additional deployment cost. Further research and testing may show the need for site-specific enhancements, which have not been costed. For example, enhancements may be needed in some high speed applications, or because of blockage of GPS signals due to tunnels, catenary, urban canyon, or terrain shadowing. Alternatively, the system design may require the use of in-track transponders, which are not included in the estimate.**

During Mr. Roskind's briefing there was a dispute about what single cost items included, identified in the report as System Development Costs. It was agreed that this would be resolved by the Economics Team during the break.

Grady Cothen stated that there is an error on the last page of Frank Roskind's report. The section on Route Miles and Track Miles reflected route miles as train miles, and vice-versa. This section of the report will be corrected.

- Sherry Borener discussed the CRAM II section of the report and the results will be posted on the website.

Larry Milhon stated that information on the corridors should be normalized. He said that there was a distinction between track miles and route miles, and that we should use route miles. The group agreed.

Dr. Borener stated that she submitted a CRAM II report for inclusion into the Report to Congress and that this final DRAFT report does not reflect her original report. Dr. Borener stated that there should not be any footnotes to the CRAM II report. Also, the paragraph preceding the Conclusions section that reads "Each corridor has been ranked according to its historical accident costs, ..... should now be deleted.

Howard Moody stated that it had been his intention to delete all of these footnotes, and that he didn't know why the document didn't reflect these changes.

Bob Gallamore requested that the regression analysis for modeling purposes results, be included in the report. Dr. Borener stated that the methodology will be included in a new Synopsis Section and will include the statistical significance. The results section will be in a tabular format.

- Rick Inclima asked Mr. Roskind to make a footnote or other notation such as an asterisk to the reference to trains and locomotives in the Economic Report, stating that there are similar costs for

outfitting maintenance-of-way vehicles.

- Howard Moody briefed the group on the compilation and distribution of the Draft Report to Congress.
- Bob Gallamore indicated that in Section V.E., of the report “Other than Safety Benefits”, needs to be deleted, because this section has now been addressed in the Economics Report.

Rick Inclima asked the group if they were sure that the Economics Report captured all that was in the original Draft Report.

Grady Cothen indicated that the Economics Team did not get into the societal benefits to capacity. We have caveats in the report that deal with everything except improvements in capacity.

Nick Marsh indicated that it was his recommendation to remove that section.

Howard Moody concluded his briefing by noting that there are new paragraphs in Section V.B & C written by Gerhard Thelen that deals with New Technology. Mr. Moody said that he had taken the editing as far as he could, and that FRA should now assume report editing responsibility.

The meeting adjourned for lunch until 1:15 p.m.

- Ted Bundy addressed the group concerning the next version (Version 2) of the DRAFT Report Congress. FRA is contracting with the Volpe Center for further work on the report. Bob Dorer will be the point of contact for Version 2 and the draft report will be available on the Volpe website April 12, 1999.
- Grady Cothen brought up the subject of switch position information, stating that he wanted the group to consider whether a system should be considered a PTC system if such information is not part of the information conveyed.
- Nick Marsh stated that if switch positioning information is considered, then there needs to be an entirely new Economics Report.

Doug Horstman indicated that Dick Stotts Report to Congress, IV. Alternatives to PTC needs to be changed to read, Systems that Apply/Offer Partial PTC Support.

Nick Marsh asked Grady Cothen if FRA has decided that Level 1 Systems will not be considered PTC Systems. Mr. Cothen stated that we are asking this group to come to some recommendations to accept PTC. Nick Marsh stated that none of the current systems convey switch position information.

Chuck Dettmann indicated that including switch positioning information would change the rationale underlying the Accident Review Team’s work. He said that there is no PTC system in existence today that meets the definition of the current PTC safety functions. Mr. Dettmann stated that the Accident Review Team and the Economics Team have been in sync in their reports to date. Switch position information has not been addressed by either Team and now this issue would have to be

looked at by the two teams.

Ron Lindsey supported what Nick Marsh had previously asked FRA concerning switch positioning information. Mr. Lindsey stated that if we can design a system that meets the three core features, why is switch positioning information necessary?

Ted Bundy said that we needed to consider the methods of operations involved when trying to determine whether or not switch positioning information is necessary. For example, in Traffic Control territory, the position of the switch is known and the authority for trains, as conveyed by signal indications, is either extended or ended based on this knowledge. Conversely, in non-signaled territory, authority for a train movement ends at locations where trains may meet or pass unless the dispatcher knows that the non-controlled switches are positioned and protected for further movement; if this information is known then the authority for a particular train is extended to the next such location. Mr. Bundy said that you have to consider operating rules and methods of operations when considering whether or not switch positioning information is necessary. Sometimes it is necessary, and sometimes it is not necessary.

#### **Management and FRA each requested a 15 minute caucus.**

Chuck Dettmann reported on the Management caucus. Management would like the Train Guard system discussed at the Kansas City, Missouri meeting, April 28.

Robin Buxton requested that the term, “Maintenance of Way” be changed throughout the report to “Roadway Worker”. The group agreed that this change should be made.

Tim DePaepe wanted clarification as to, “Where are we and how are we going to move forward?”

Ted Bundy addressed an earlier concern from Doug Horstman. Mr. Bundy made a suggestion that the current title of Section IV, Alternatives to PTC, be changed to read, “Other Approaches to Enhancing Safety of Operations”.

Grady Cothen indicated that we need to set up a Human Factors Team which will be folded into the ASCAP Process. FRA wants a system that enhances safety and that will make all railroads safer.

Nick Marsh made the statement again, that no railroad will continue to invest money into the PTC systems unless FRA is willing to state what they want and where FRA wants the railroads to go.

Chuck Dettmann made a suggestion that the Proximity Warning section be taken out of IV. Alternatives to PTC, and the Current PTC Projects section, remain as it is in the report. The group agreed to this change.

**The meeting adjourned at 3 p.m. The Economics Team would meet immediately following adjournment.**

#### **March 12: Data & Implementation Task Force Meeting convened at 8:00 a.m.**

- Frank Roskind reported on the Economics Team Meeting. Jim Stem asked what was the purpose of this report. Ted Bundy explained to Mr. Stem that we (the team) had decided to take out DGPS

and set it's value to \$0, so therefore the Economics Team met to report on the change. The section on Route Miles and Track Miles were corrected. Mr. Roskind will email his corrected report to the team.

Bob Gallamore stated that there is a missing level that does not detect bridges. Grady Cothen asked the question as to whether the Economics Team Report could show the costs of Level 3 and Level 4.

Jim Stem asked why is there a need to go back and reinvent the wheel. He also stated that it time for us to go on with the data that we now have. He said we are not going to back-up this report and that we need to take the report as it is and go forward. He also stated that AAR is not supportive of the PTC process for safety benefits alone.

Grady Cothen asked that everyone keep an open mind in the process. Dr. Gallamore has a reasonable request, and there should be a way to add the additional features to Levels 3 and 4 and displaying these numbers. Chuck Dettmann agreed with Mr. Cothen and asked that the Economics Team add this information to their spreadsheet and report this to the Data & Implementation Team.

Mr. Dettmann also asked Mr. Stem to elaborate on his above comment. Jim Stem again stated that FRA should take the information that we now have for this Report to Congress and go forward with the DRAFT. We do not need to add or make any changes to the information. Mr. Stem made a motion that the meeting adjourn.

FRA requested a caucus.

Grady Cothen asked the group to stick with the process and that we will have a document in support of PTC.

Gary Pruitt, stated that one way to bring this all together is to show one table or matrix with the 4 Level categories down one side, the functional capabilities that are included in each, and the final number that the Economics Team comes up with.

Chuck Dettmann stated that if the group wanted to go this route, the Accident Review Team and the Economics Team describe what is in each of the 4 Levels and the assumptions that they will make. We will know what is and what is not included.

Ted Bundy restated to the group that FRA will take over compiling of the Report to Congress. If anyone has comments, they need to email this information to Bob Dorer, James Stem, Chuck Dettmann, Grady Cothen and Ted Bundy.

Frances Hooper requested that either Tim DePaepe or Larry Milhon briefly explain the four levels of PTC. Larry Milhon honored this request.

Grady Cothen distributed two documents, one titled "What can we do to create a favorable climate for early implementation of PTC?" and the other document titled, "Scope of Work (or Needs Statement) for a Human Behavior Team. Both documents in DRAFT version dated 3/11/99. Mr. Cothen asked the group for a tentative go on the scope of work for a Human Behavior Team.

Mr. Cothen stated FRA would appoint Dr. Tom Raslear, an engineer from FRA's Research and Development, Human Factors Staff, as chairman of this group. The FRA members would also include other FRA Research & Development Human Factors Staff. He said FRA's point of contact for this Team will be Manuel Galdo. The team will be composed of members from FRA, Volpe Center, labor, railroad management, suppliers, and with non-FRA participants drawn from both task forces of the PTC Working Group.

Gerhard Thelen said that he wasn't certain that railroad management would conclude that the management members of the PTC Working Group were the appropriate people to staff a team such as this.

Frances Hooper asked Mr. Cothen if there is additional research funding available for the application of technology that is being applied in the freight industry, so they can be applied in the commuter industry. Something similar that needs to be done for research or implementation in the commuter industry. Mr. Cothen stated that FRA is an advocate in the Illinois Project which is designed to build very modular software to support flexible block operation that would deal with this.

- Fran Hooper suggested that in June the group may want to meet in New Jersey to see the New Jersey Transit Project. The tentative dates of the meeting are Wednesday, June 2 from 1 p.m. to 5 p.m., Thursday, June 3 from 8 a.m. to 5 p.m. and on Friday, June 4 from 8 a.m. until Noon.

**Meeting adjourned at 10:50 a.m.**

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